

## **5 CUMULATIVE IMPACTS**

### **5.1 INTRODUCTION TO THE CUMULATIVE ANALYSIS**

State CEQA Guidelines §15130 require that an EIR discuss cumulative impacts of a project and determine if the project's incremental effect is "cumulatively considerable." The definition of cumulatively considerable is provided in §15065(a)(3):

"Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

According to §15130(b) of the State CEQA Guidelines,

"[t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact."

For purposes of this EIR, the project would have a significant cumulative effect if:

- the cumulative effects of related projects (past, current, and probable future projects) without the project are not significant and the project's incremental impact is substantial enough, when added to the cumulative effects, to result in a significant impact; or
- the cumulative effects of related projects (past, current, and probable future projects) without the project are already significant and the project contributes measurably to the effect. The standards used herein to determine measurability are that either the impact must be noticeable or must exceed an established threshold of significance.

Mitigation measures are to be developed, where feasible, that reduce the project's contribution to cumulative effects to a less-than-significant level.

This Draft EIR identified potentially significant environmental impacts associated with implementation of the proposed project; those impacts are addressed in Chapter 4, Environmental Setting, Thresholds of Significance, Environmental Impacts, and Mitigation Measures.

These issues, and others that could contribute considerably to cumulatively significant effects, are discussed below in the context of cumulative development.

### **5.2 RELATED PROJECTS**

The analysis of cumulative environmental impacts associated with the project addresses the potential incremental impacts of the project in combination with those of other past, present, and probable future projects and land use changes. The projects listed in Table 5-1 and shown in Exhibit 5-1 are not intended to be an all-inclusive list of projects in the region, but rather an identification of projects constructed, approved, or planned in the vicinity of SQSP or elsewhere in the county that have some relation to the project and/or the setting conditions of the project. The analysis is based on information obtained from

Marin County's Proposed Development (PropDev) 38 Report (Marin County 2004). PropDev is compiled by the Marin County Community Development Department from input provided by cities within the county.

In addition to these projects, it is acknowledged that the totality of past development in the project region and the San Francisco Bay area in general has, over the years, resulted in substantial changes in the environment and numerous significant environmental impacts to visual resources, air quality, biological resources, hydrology, noise, traffic, and water use. The existing conditions discussions provided throughout Chapter 4 reflect the cumulative impacts associated with previous development in the region.

### **5.3 GEOGRAPHIC SCOPE**

The geographic area that could be affected by the project varies depending on the type of environmental resource being considered. When the effects of the project are considered in combination with those other past, present, and future projects to identify cumulative impacts, the other projects that are considered may also vary depending on the type of environmental effects being assessed. The general geographic area associated with different environmental effects of the project defines the boundaries of the area used for compiling the list of projects considered in the cumulative impact analysis. Table 5-2 presents the general geographic areas associated with the different resources addressed in this Draft EIR analysis.

Because identification of individual projects on a regional scale (i.e., multiple counties) would be exhaustive and is unnecessary given that planning projections generally include regional development, the regional context for the cumulative impact analysis is described more generally rather than in relation to individual development projects. Where relevant, the analysis is based on regional resource studies and plans (i.e., general plans, regional transportation plans) that forecast or evaluate planned development projects over a defined planning period.

### **5.4 ANALYSIS OF CUMULATIVE IMPACTS**

#### **VISUAL RESOURCES**

In general, the visual resource impacts of the projects are site specific in that they would not result in changes to other project areas within the local viewshed. With the exception of the Richmond-San Rafael Bridge Retrofit project, Drakes Way/Drakes Cove, and the Sanitary District Project, projects in the vicinity are either sufficiently distant from the project site or are of small enough scale that visually they would not combine with the project's visual impacts.

The Richmond-San Rafael Bridge Retrofit project would involve the upgrade of existing expansion structure along the bridge and would not substantially change the visual character of the bridge or the surrounding area. The Drakes Way/Drakes Cove and the Sanitary District projects are new development projects that would be located approximately 1 mile east of the project site. These projects would result in the development of previously undeveloped hillside properties. Although the project would not contribute to the cumulative development of hillside areas (i.e., San Quentin Ridge), the project would block some views of these hillside areas under the stacked design option, which could contribute to the cumulative alteration of the local viewshed from distant viewpoints (i.e., Corte Madera).

Table 5-1 List of Projects in San Quentin State Prison Vicinity						
Exhibit 5-1 Map Key	Project Name	Total Acreage	Developed or Proposed Land Use	Total Number of Dwelling Units	Total Commercial Square Footage	Location
<b>Completed Projects</b>						
1	171 – 181 Third Street	1.24	Commercial (Shopping Center)	N/A	16,122	171 – 181 – 201 Third Street, San Rafael Parcel No. 014-161-22, 23 and 151-11
2	Baywood Terrace – Phase I	8	Residential Units (Single Family)	6	N/A	Irwin Street and Baywood Terrace, San Rafael Parcel No. 013-310-06-10, 12-14, 18, 22, 43, and 47
3	Dominican College Plan	55.1	Mixed-Use	N/A	71,000	50 Acacia Avenue, San Rafael Parcel No. 015-141-01, 142-03, and 04, 161-01 and 01
<b>Projects Under Construction</b>						
4	Richmond-San Rafael Bridge Retrofit Project	N/A	Toll Bridge for I-580	N/A	N/A	Between Richmond and San Rafael, across San Francisco Bay
5	Route 101 HOV Lane Widening	N/A	Route 101 Freeway	N/A	N/A	Route 101, Marin and Sonoma Counties
6	Drakes Way/Drakes Cove	18	Residential Units (Single Family, Multi-Family, Below Market)	47	N/A	Larkspur Parcel No. 018-191-19, 41

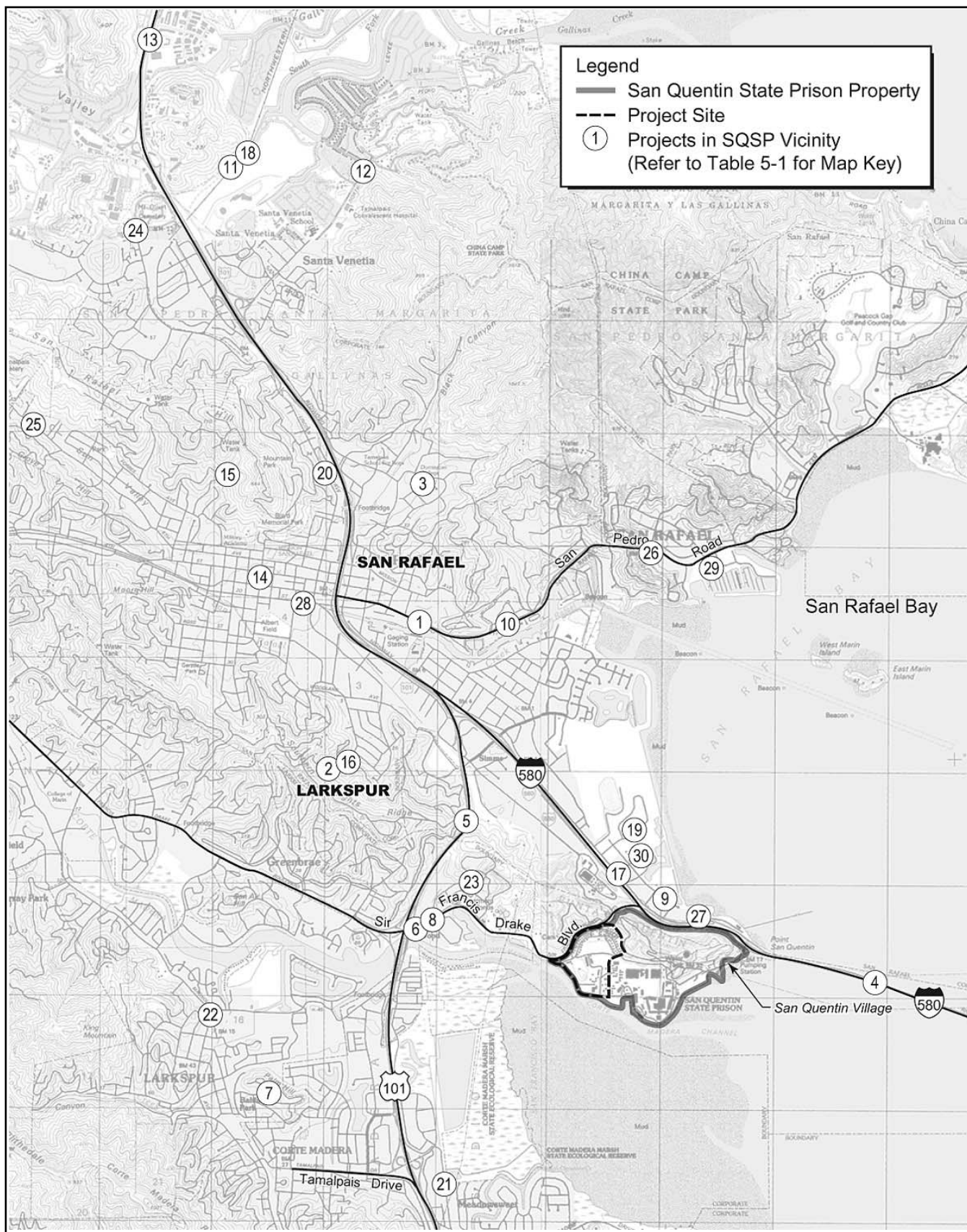
Table 5-1 List of Projects in San Quentin State Prison Vicinity							
Exhibit 5-1 Map Key	Project Name	Total Acreage	Developed or Proposed Land Use	Total Number of Dwelling Units	Total Commercial Square Footage	Location	Status
7	Elm Crest Subdivision	8	Residential Units (Single Family)	8	N/A	Elm Avenue, Larkspur Parcel No. 021-214-11 and 021-175-25	In Construction
8	Marin Rowing	0.6	Commercial (Storage Facility)	N/A	13,475	50 Drakes Landing Way, Larkspur Parcel No. 022-050-18, 19, and 23	In Construction
9	2350 Kerner	10.28	Mixed-Use	N/A	148,549	2350 Kerner Street, San Rafael Parcel No. 009-291-10, 31, 32, and 34	In Construction
10	Chapel Cove	9.4	Residential Units (Single Family, Below Market)	17	N/A	115 Point San Pedro Road, San Rafael Parcel No. 184-052-08	In Construction
11	McInnis Park Apartments II	2.24	Residential Units (Multi- Family)	42	N/A	North Avenue, San Rafael Parcel No. 155-370-08 and 09	In Construction
12	Redwood Village	17	Residential Units (Single Family, Multi-Family, Below Market)	133	N/A	North San Pedro Road, San Rafael Parcel No. 179-131-01	In Construction
Approved Projects							
13	4300 Redwood Highway	10	Industrial	N/A	130,168	4300 Redwood Highway, San Rafael Parcel No. 155-110-05 and 06	Approved

<p><b>Table 5-1</b> <b>List of Projects in San Quentin State Prison Vicinity</b></p>							
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14	918-924 B Street	0.11	Mixed-Use	13	4,000	918-924 B Street, San Rafael Parcel No. 001-261-12	Approved
15	Academy Heights	30.76	Residential Units (Single Family)	6	N/A	Twin Oaks Drive, San Rafael Parcel No. 011-051-37, 011-051-32, 33, 34, 35, and 36)	Approved
16	Baywood Terrace – Phase II	8	Residential (Single Family)	7	N/A	Irwin Street and Baywood Terrace, San Rafael Parcel No. 013-310-06 – 10, 12 – 14, 18, 22, 43 and 47	Approved
17	Hilltop Garden Inn	1.78	Commercial (85-room Hotel)	N/A	N/A	1775 Francisco Boulevard East, San Rafael Parcel No. 009-291-41	Approved
18	McInnis Park Apartments IIB	0.92	Residential Units (Multi- Family, Below Market)	14	N/A	North Avenue, San Rafael Parcel No. 155-370-08 and 09	Approved
19	Team Hyundai	2.01	Commercial (Auto Dealership)	N/A	3,500	150 Shoreline Highway, San Rafael Parcel No. 009-320-44	Approved
20	The Lincoln Mews Townhomes	0.92	Residential Units (Multi- Family, Below Market)	24	N/A	1515 Lincoln Avenue, San Rafael Parcel No. 011-092-07 and 20	Approved

**Table 5-1  
List of Projects in San Quentin State Prison Vicinity**

<b>Exhibit 5-1 Map Key</b>	<b>Project Name</b>	<b>Total Acreage</b>	<b>Developed or Proposed Land Use</b>	<b>Total Number of Dwelling Units</b>	<b>Total Commercial Square Footage</b>	<b>Location</b>	<b>Status</b>
<b>Projects Under Review</b>							
21	San Clemente Drive	N/A	Mixed-Use (Residential and Storage Facility)	79	69,000	San Clemente Drive, Corte Madera	Under Review
22	Central Larkspur Specific Plan	22	Mixed-Use (Residential and Commercial)	Approx. 132	105,414- 143,700	Downtown Larkspur	Under Review
23	Sanitary District Property	10.29	Mixed-Use (Residential, Hotel, Commercial)	136	82,000	2000 Larkspur Landing Circle, Larkspur Parcel No. 018-171-32	Under Review
24	Alma Via of San Rafael	2.8	Commercial (Office)	N/A	120,141	355 Los Ranchitos Road, San Rafael Parcel No. 177-240-21	Under Review
25	Cameros Subdivision	5.46	Residential (Single Family, Multi-Family)	15	N/A	2416 Fifth Street, San Rafael Parcel No. 177-240-21 and 22	Under Review
26	Parisa Place	6.2	Residential (Single Family)	9	N/A	Point San Pedro Road, San Rafael Parcel No. 016-213-12	Under Review
27	Piombo Place Mini Storage II	2.29	Commercial (Storage Facility)	N/A	36,431	2157 Francisco Boulevard, San Rafael Parcel No. 009-161-50, 009-291-02, 009- 291-03	Under Review
28	San Rafael Corporate Center	15.1	Commercial (Office Park)	N/A	406,000	Second/Lindero/Lincoln, San Rafael Parcel No. 016-012-28, 021-42, 021-19	Under Review

Table 5-1 List of Projects in San Quentin State Prison Vicinity							
Exhibit 5-1 Map Key	Project Name	Total Acreage	Developed or Proposed Land Use	Total Number of Dwelling Units	Total Commercial Square Footage	Location	Status
29	The Village at Loch Lomond Marina	128	Mixed Use (Residential and Commercial)	88	N/A	110 Loch Lomond Drive, San Rafael  Parcel No. 016-070-02, 06, 009-141-05, - 7, 08, 009-142-07	Under Review
30	Marin Municipal Water District – Desalination Project	N/A	Utilities – Desalination Plant	N/A	N/A	Pelican Way, San Rafael	Under Review
Totals		376.5		776	1,244,086		
Sources: PropDev 38, Marin County 2004							

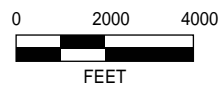


Source: USGS San Rafael Quad 1993; San Quentin Quad 1993; Navato 1980; Petaluma Point 1980

## Projects in SQSP Vicinity

San Quentin State Prison Condemned Inmate Complex Project Draft EIR  
P 3T053.01 07/04

EXHIBIT 5-1



EDAW



<p align="center"><b>Table 5-2</b> <b>Geographic Scope of Cumulative Impacts</b></p>	
<b>Resource Issue</b>	<b>Geographic Area</b>
Visual Resources	local (surrounding cities)
Air Quality	regional (pollutant emissions that have regional effects) and immediate project vicinity (pollutant emissions that are highly localized)
Biological Resources	regional and local
Land Use and Planning	regional and local
Cultural Resources	local (limited to project site)
Geology, Soils, and Seismicity	local
Hazards and Hazardous Materials	local (immediate project vicinity)
Hydrology and Water Quality	local and regional (San Francisco Bay)
Noise	local (immediate project vicinity where effects are localized)
Employment, Population, and Housing	regional (Solano, Contra Costa, Marin, Sonoma and other counties)
Public Services and Utilities	regional (water, wastewater, electricity, natural gas, solid waste) and local (police and fire)
Transportation and Traffic	regional and local
Source: EDAW 2004	

Past development of the project area, including existing SQSP, has transformed the viewshed from open space with expansive views of the San Francisco Bay, to a somewhat developed largely urban viewshed, depending on the viewpoint. While many views in the project vicinity are attractive, other viewpoints have been degraded or views have been obstructed by development.

As described in Section 4.1, the project (under both design options) would result in substantial changes in the visual character of the site especially when viewed from certain viewpoints including along Sir Francis Drake Boulevard and from the Larkspur Ferry. Further, the project would increase the density of development along shoreline areas of San Francisco Bay and the San Quentin Peninsula. Some of the visual change is project specific. However, some of the visual change is cumulative in that the project, in combination with existing SQSP (particularly), and other area development will continue to alter the viewshed. The project's visual changes to the viewshed in combination with visual impacts of related projects would result in the intensification of development along hillside and shoreline areas on San Quentin Peninsula. These developments could change the visual pattern of the area from a somewhat open space to a more developed urban pattern. Mitigation has been recommended for the project to minimize impacts to the degree feasible. However, this mitigation would not change project conditions such that the existing visual character of the site would be maintained. No other feasible mitigation is available to reduce the project's visual impacts. Therefore, with implementation of recommended mitigation, the project would result in a cumulatively considerable contribution to cumulatively significant visual impacts and this impact is unavoidable.

*Implementation of the project (under both design options) would result in substantial changes to local views in the surrounding area including views from Larkspur Ferry and areas along Sir Francis Drake Boulevard. Even with implementation of mitigation to reduce the project visual impacts, the visual character of the site would be substantially altered, and this would contribute to a cumulatively more urbanized viewshed. No other mitigation is available to reduce this impact. Therefore, this would be a cumulatively considerable and unavoidable visual impact.*

## **AIR QUALITY**

As described in Section 4.2, the Bay Area air basin, under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD) is in non-attainment for ozone (O<sub>3</sub>) and small particulate matter (PM<sub>10</sub>). This is a significant cumulative impact, resulting primarily from use of automobiles and stationary sources, as well as from construction of new projects in the air basin. This impact is primarily a result of past development projects, which have generated the population and land use patterns that have lead to heavy reliance on automobiles and the urban infrastructure that generates air pollutants.

Any project that is constructed in the BAAQMD has the potential to add traffic and other pollution-emitting sources that would contribute to the cumulative degradation of air quality in the region. The BAAQMD is required to make progress toward compliance with federal clean air standards. While it can be assumed that policies and regulatory programs (i.e., requirements for best available control technology, carpooling, and ridesharing) would minimize air quality impacts over time, it cannot be stated with certainty that future air quality, with growth projected to occur throughout the region, would be better in the future than today.

Construction-related emissions associated with the project are expected to be temporary and would be significant. Although the project's impacts would be temporary and would be reduced through implementation mitigation measures committed to by CDC as the project applicant and lead agency, the project would contribute to the continued exceedance of regional thresholds for ROG, NO<sub>x</sub>, and PM<sub>10</sub>. The project in combination with other cumulative projects would cumulatively contribute to the continued exceedance state and federal ambient air quality standards.

*Although implementation of region-wide mitigation measures (recommended in the BAAQMD Air Quality Attainment Plan) including programs to improve carpooling and ridesharing, would reduce the project's contribution to regional pollutant loads, the project would contribute to the continued exceedance of state and federal ambient air quality standards for ROG, NO<sub>x</sub>, and PM<sub>10</sub>. No other feasible mitigation is available. This would be a cumulatively significant and unavoidable impact.*

## **BIOLOGICAL RESOURCES**

Habitat for biological resources has been substantially removed in the region over time, and very little wildlife habitat remains in the vicinity of the site. This is a significant cumulative impact on regional biological diversity.

As described in Section 4.3, the project site is already developed and the project would have a less than significant effect on sensitive plant and wildlife species and habitats. Thus, the project would not contribute considerably to cumulative habitat loss in the region. However, operation of an electrified fence at SQSP would result in the death (i.e., electrocution) of birds, some of which are protected under MBTA and the Fish and Game Code. Although it is not expected that the project would eliminate any resident or migratory bird species or reduce species diversity in the project vicinity, it is possible that the local population of one or more native birds, protected by MBTA and the Fish and Game Code, could be substantially affected. Mitigation recommended for the project and committed to by CDC as the project

applicant and lead agency would result in CDC's consultation with USFWS and DFG and implementation of measures to minimize, deter, and compensate for the project's impact on native wildlife populations. This mitigation would reduce the project's impact to a less-than-significant level and the project would not contribute considerably to cumulative migratory bird population reductions.

Development of the project and other cumulative developments would result in an incremental increase in urban development that would affect potential jurisdictional waters of the U.S. onsite and in the local area. Very little wetland habitat is located onsite and it is substantially degraded. Mitigation recommended for the project and committed to by CDC as the project applicant and lead agency would result in the "no net loss" of project-related habitat, which would reduce the project's impact so that its contribution to cumulative impacts is not considerable.

*Because CDC has committed to mitigation that would reduce the project's impacts to native bird populations and potential jurisdictional waters of the U.S. to a less-than-significant level, the project's contribution to cumulative biological impacts would not be considerable.*

## **LAND USE AND PLANNING**

The project would construct prison facilities within the existing SQSP boundaries. The project site is sufficiently distant from any public uses or communities (i.e., San Quentin Village) that it would not result in any land use compatibility impacts. Further, the project would be determined to be consistent with relevant policies of BCDC's San Francisco Bay Plan. Although the project is not subject to the plans and policies of local jurisdictions, the project was determined to be consistent with relevant policies of the Marin Countywide Plan, City of Larkspur General Plan, City of San Rafael General Plan, and the Point San Quentin Land Use Policy report. Therefore, the project's contribution to cumulative land use impacts would be less than significant.

*Because the project would not result in any land use compatibility impacts and would be consistent with relevant policies of state and local jurisdictions, the project would result in less-than- significant cumulative land use impacts.*

## **CULTURAL RESOURCES**

The project site is adjacent to the old SQSP cell blocks. While not listed on any registers as historic, given the age and place of the SQSP cell blocks in California history, it is likely they would be eligible for listing. If cultural or historic resources were to be affected at old SQSP rather than the project site only, impacts could potentially be cumulatively significant. This is not the case, as the older SQSP would not be affected. See Section 4.5 of this EIR.

The project would result in potentially significant impacts to undiscovered cultural resources; however these impacts would be reduced to a less-than-significant level with mitigation recommended for the project and committed to by CDC as the project applicant and lead agency. Thus, any contribution to cumulative impacts would not be considerable.

With implementation of the project under the stacked design option, no historic structures listed or potentially eligible for listing on the California Register of Historic Resources (CRHR) would be affected. Therefore, under this design option, the project would not have any cumulative impact to known cultural resources.

With implementation of the project under the single level design option, the project would result in the removal of a historic schoolhouse building and the removal of 57 prison employee residences. The

schoolhouse appears to be eligible for listing as a historical resource in the CRHR, and CDC is consulting with the State Historic Preservation Officer (SHPO) to receive final determination on its eligibility status. Although none of the prison employee residences would be eligible for listing on the CRHR as individual structures because the lack architectural quality and integrity of construction, these residences (as a collection) could be potentially eligible for listing on the CRHR as a historic district because of their architectural similarity and shared history. CDC is consulting with SHPO to receive final determination on the residences eligibility status. In the event SHPO determines that the schoolhouse and the prison employee residences are eligible for listing on the CRHR, mitigation has been recommended and agreed to by CDC, to reduce the project's impacts to these resources by appropriately recording and documenting these resources. However, no other feasible mitigation is available to reduce these impacts to a less-than-significant level. If SHPO determines that the schoolhouse and residences would not be eligible for listing on the CRHR, the project would result in less-than-significant impacts to these resources. In any event, these impacts are project specific and would not combine with any impacts at SQSP or known impacts elsewhere to create cumulative significant impacts.

*The project could result in the potential loss of undiscovered archaeological resources. Because the project includes mitigation (agreed to by CDC) to avoid the loss of previously undiscovered archaeological resources, the project's contribution to any cumulative impacts to undiscovered archaeological resources would not be considerable.*

*The project (under the stacked design option) would not result in any significant impacts to historic structures or resources. However, the project (under the single level design option) could result in the demolition and removal of the schoolhouse and employee residences that are potentially eligible for listing on the CRHR. If determined to be eligible for listing by SHPO, the loss of these resources, even with mitigation recommended and committed to by CDC, would result in a significant cultural resource impact. This would be a site specific impact and would not combine with any impacts at SQSP or known impacts elsewhere to create cumulatively significant impacts. Further, if these structures are determined to be ineligible for listing, this would be a less-than-significant cumulative cultural resource impact.*

## **GEOLOGY, SOILS, SEISMICITY**

Geologic and soil impacts are site specific and are not affected by cumulative development in the region. Cumulative impacts would only occur if development adjacent to the site affected geologic resources on the site, or if development on the site affected geologic resources of the site where other development may occur. Because neither is the case, no cumulative geology, soils, or seismicity impacts would occur.

*The project would not combine with any other projects to create cumulative impacts to geology, soils, and seismicity. The project would not result in a cumulatively significant geologic impact.*

## **HAZARDS AND HAZARDOUS MATERIALS**

Hazardous and hazardous materials impacts are generally site specific and/or confined to the local area. The project would result in less-than-significant impacts related to creating a significant hazard to the public or environment because proper handling and storage of hazardous material during construction and operation would occur with implementation of the project. The project would result in significant impacts relating to the exposure of construction workers to hazardous materials present on the site. However, mitigation recommended for the project and agreed to by CDC as the project applicant and lead agency would reduce this impact to a less-than-significant level through proper management techniques and removal of onsite soil contamination at the site. The projects hazards and hazardous material impacts would not cumulatively combine with impacts of cumulative development because they are isolated and site specific.

*Because CDC has committed to implementing mitigation that would reduce the project's site specific hazards and hazardous material impacts to a less-than-significant level, and the project would not result in impacts that would combine with cumulative development. The project would result in less-than-significant cumulative hazards and hazardous materials impacts.*

## **HYDROLOGY AND WATER QUALITY**

The project would result in a potentially significant water quality impact associated with the discharge of stormwater to San Francisco Bay. Mitigation recommended for the project and agreed to by CDC as the project applicant and lead agency would reduce this impact to a less-than-significant level through the implementation of a comprehensive stormwater pollution prevention plan (SWPPP). The project's contribution to cumulative hydrology and water quality impacts would not be considerable.

*Because the CDC would implement mitigation to reduce the project's stormwater quality impact to a less-than-significant level, the project's contribution to hydrologic and water quality impacts would not be cumulatively considerable.*

## **NOISE**

The discussion of cumulative noise effects is focused on the areas near the project site where noise from traffic would combine with noise from other traffic. Construction work would result in site-specific noise levels but would not combine with other noise sources.

In order to be considered significantly noticeable, project traffic would need to increase noise on project area roadways by approximately 3 dB CNEL. As described in Section 4.9, project traffic would increase noise on roadways by 0.1 dB CNEL or less. This would not be perceptible and would not result in a considerable contribution to traffic noise.

*The project would not result in cumulatively considerable traffic noise impacts increases, and cumulative traffic would not operate cumulatively significant noise to sensitive receptors along project area roadways. The project would not result in a cumulatively significant noise impact.*

## **EMPLOYMENT, POPULATION, AND HOUSING**

Because of the large labor pool in the Bay Area, most of the new job positions introduced by the project and cumulative development in the region would be filled by current residents of the Bay Area and outlying communities without resulting in substantial in-migration of new residents. Therefore, the project-related population growth would not measurably stimulate new development, the construction of which could result in significant environmental impacts. The project-related population growth would be absorbed in growth projections of regional and local communities.

*Because the project would not cause substantial in-migration of workers or residents to the project area and the project-related population growth and would be absorbed into the region, the project would not result in cumulatively considerable population, employment and housing impacts.*

## **PUBLIC SERVICES AND UTILITIES**

### **POLICE AND FIRE SERVICES**

Cumulative development would result in the concentration of persons and structures within local police and fire jurisdictions. SQSP maintains its own fire response personnel and implementation of the project

would not affect the ability of local fire agencies to provide response services within their service area. Further, the project would not be expected to increase police response services above existing conditions. In general, it is expected that local jurisdictions would ensure that all cumulative development would be constructed in accordance with applicable fire codes and with adequate security to reduce the potential cumulative impacts on these agencies. Therefore, the project would not result in cumulatively significant impacts to police and fire services.

*Because the project would not increase demand for police and fire services above existing conditions, the project would have a less-than-significant cumulative impact on police and fire services.*

## **SCHOOLS**

Schools in the project region are generally operating at or over capacity. Cumulative residential developments within the region would exacerbate conditions in school districts that are currently overcrowded. Any housing construction that exacerbates school overcrowding would likely be required to pay school impact fees, and these fees are legislatively deemed to be full mitigation for school impacts. Further, the project would not generate a substantial number of new employees living in any one area and would not contribute significantly to school overcrowding.

*Although many schools in the region are operating at or over capacity, the project would not generate a substantial number of new students in any one area and would not contribute significantly to school overcrowding. This would be a less-than-significant cumulative impact on schools.*

## **WASTEWATER**

CMSA, which provides wastewater treatment to SQSP, has capacity available to serve anticipated cumulative development in the area without requiring the expansion of its facilities. The project would not substantially increase the volume of wastewater conveyed to the CMSA for treatment and disposal.

*Because CMSA has capacity to treat cumulative development without expanding its facilities, and the project would not substantially increase wastewater volumes conveyed to CMSA, the project would have a less-than-significant cumulative impact on wastewater.*

## **WATER SUPPLY**

As described in Section 4.11-4, Water Supply, the MMWD currently has an operational yield shortfall of approximately 3,000 AFY. Development in northern Marin County and in Sonoma County, as well as other actions in Sonoma County, would likely affect the amount of water available for export to Marin County. This cumulative development and related actions could further exacerbate the operational yield deficit. By the year 2025, and barring any further development of water supply, MMWD's operational supply is expected to be reduced from 29,000 AFY to 27,000 AFY, and demand is expected to grow from 32,000 AFY to 35,800 AFY, increasing the operation yield deficit from 3,000 AFY to nearly 9,000 AFY (MMWD 2003). Thus, past development, in combination with forecasted future development, results in significant water shortages to MMWD, which is intended to be addressed by conservation and the construction of new water delivery facilities (see Section 4.11-4), the construction of which could result in significant environmental impacts.

With implementation of the project, SQSP's demands (maximum design capacity) for water would increase by 227 AFY, from a current use of 953 AFY to a total of 1,180 AFY. SQSP is in the process of securing funding to install automated flush valves on the 2,600 existing toilets at the main prison facilities. These toilet retrofits would result in an estimated water savings of 327 AFY, which would

reduce SQSP's overall water demand to 626 AFY. With implementation of the toilet retrofits and the project, water demands at SQSP are estimated to be approximately 853 AFY (227 AFY plus 626 AFY). On a cumulative basis, the project would result in water demands that are less than current water demands at SQSP. Because water demands at SQSP under cumulative development would be less than today's water demands, CDC considers the project's incremental impact on cumulative water demands to be less than significant. However, because the project would result in a net increase in water demands even with implementation of recommended water conservation mitigation (i.e., an increase of 167 AFY–207 AFY), the project would contribute to the exacerbation of MMWD's operational yield shortfall. For purposes of this analysis, CDC considers the project's contribution to cumulative water demands to be a significant cumulative impact.

*Although cumulative water demands at SQSP would be less than current water demands, the project would result in a net increase in water demands between 167 AFY and 207 AFY, which would contribute to the further exacerbation of MMWD's operational yield shortfall. Therefore, the project would result in a cumulatively significant impact on water supplies. The project has incorporated all feasible mitigation to reduce project-related impacts on available water supplies. No other mitigation is available to reduce this impact. Therefore, this would be a cumulatively considerable and unavoidable impact.*

## **SOLID WASTE**

The project would not substantially affect the disposal capacity of local solid waste agencies. The project in combination with cumulative development would increase demands for solid waste disposal capacity; however, substantial capacity is available in local landfill facilities to meet this demand.

*Because the project would not substantially affect the disposal capacity of local landfills, and substantial capacity is available to accommodate solid waste from cumulative development, the project would have less-than-significant cumulative impact on solid waste disposal facilities.*

## **ELECTRICITY AND NATURAL GAS**

The project would add to the cumulative demands for electricity and natural gas imposed by this and other cumulative developments in the area. PG&E does not anticipate any adverse impacts on its ability to provide electrical service to the area as a result of these developments. Therefore, the project would have a less than significant impact on electricity and natural gas supplies and facilities.

*Because the project would not adversely affect PG&E's ability to provide electricity and natural gas to the service area, the project would have a less than significant cumulative impact on electrical and natural gas supplies and facilities.*

## **TRANSPORTATION / TRAFFIC**

The *Traffic Analysis for the San Quentin Condemned Inmate Complex* (DKS 2004) (Appendix G) evaluated the cumulative transportation impacts of the local roadway system under cumulative no project (i.e., without implementation of the project) and cumulative project conditions. The purpose of evaluating cumulative no project conditions is to identify the anticipated LOS and intersection operation under future development conditions without implementation of the project and compare these results to LOS levels under project conditions to determine the project's incremental contribution to cumulative traffic conditions. The traffic analysis that follows was based on traffic volume data for local intersections and planned roadway improvement information provided by the City of Larkspur and the City of San Rafael.

The following planned roadway improvements are programmed to be implemented by the year 2020; thus, they were considered in this cumulative traffic analysis:

- construction of an additional (third) through lane on the east leg (westbound) of Sir Francis Drake Boulevard and Highway 101 northbound ramps.
- construction of an additional (third) through lane on the east leg (westbound) of the intersection of Sir Francis Drake Boulevard/Larkspur Landing Circle (west), and conversion of the north leg (southbound) to a left-shared through lane and two exclusive right turn lanes.
- installation of a signal and widening of the Andersen Drive/Sir Francis Drake Boulevard Intersection.

Specific details of the traffic modeling methodology are presented in the *Traffic Analysis for the San Quentin Condemned Inmate Complex*, which is included in Appendix G of this document.

### NO PROJECT CONDITIONS

Cumulative no project traffic volumes at the 8 study intersections for the weekday a.m., weekday midday, weekday p.m., and weekend midday are presented in Table 5-3.

<b>Table 5-3</b> <b>Traffic Operating Conditions Cumulative – No Project Conditions</b>									
#	Intersection	weekday						weekend	
		a.m. peak		midday		p.m.		midday	
		Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>
1	U.S. 101 SB off-ramp/Sir Francis Drake Boulevard	13.2	B	6.0	B	11.9	B	4.6	A
2	U.S. 101 NB on/off ramp/Sir Francis Drake Boulevard <sup>3</sup>	17.6	C	19.0	C	18.8	C	18.0	C
3	Larkspur Landing Cr (W)/Sir Francis Drake Boulevard <sup>3</sup>	13.7	B	12.8	B	22.3	C	11.3	B
4	Larkspur Landing Cr (E)/Sir Francis Drake Boulevard <sup>3</sup>	8.0	B	6.9	B	9.8	B	9.4	B
5	San Quentin West Gate/Sir Francis Drake Boulevard <sup>3</sup>	>50	F	>50	F	>50	F	>50	F
6	Andersen Drive/Sir Francis Drake Boulevard <sup>4</sup>	16.2	C	8.7	B	13.4	B	9.0	B
7	Main Street/I-580 EB on/off ramp <sup>4</sup>	9.9	A	>50	F	>50	F	21.9	C
8	Main Street/I-580 WB off-ramp <sup>4</sup>	33.1	D	>50	F	43.5	E	40.4	E
Notes: Intersections 1-4 are signalized; Intersections 5-8 are unsignalized. <sup>1</sup> Avg. Delay: Average Delay in seconds per vehicle. <sup>2</sup> LOS: Level of Service <sup>3</sup> City of Larkspur Intersection <sup>4</sup> City of San Rafael Intersection Source: DKS Associates 2004									



As a result of cumulative traffic growth in the project vicinity, three study intersections would operate at an unacceptable LOS under the cumulative no project conditions. Therefore, regardless of whether the project is approved and ultimately implemented, cumulative growth and development in the local area would result in the deterioration of the local roadway system. The intersections that would operate at unacceptable levels under the no cumulative project condition include:

- San Quentin West Gate/Sir Francis Drake Boulevard,
- Main Street/I-580 eastbound on/off ramp, and
- Main Street/I-580 westbound off-ramp.

Under project conditions (Section 4.12, Transportation), only the Sir Francis Drake Boulevard/San Quentin West Gate intersection was projected to operate under unacceptable conditions under all peak periods analyzed. Although the project would result in significant impacts at the Andersen Drive/Sir Francis Drake Boulevard intersection, under cumulative no project conditions this intersection would improve its operation to acceptable levels as a result of implementation of planned roadway improvements by the City of San Rafael.

The addition of cumulative traffic would degrade LOS levels at Main Street/I-580 eastbound on/off ramp intersection to LOS F during the midday peak hour and p.m. peak hour and the intersection of Main Street/I-580 westbound off/ramp would deteriorate to LOS F under the midday peak hour, weekday p.m., and weekend midday peak hours (Table 5-3). These LOS levels serve as the baseline against which the project's contribution to the cumulative condition are determined below.

#### **PROJECT-RELATED CUMULATIVE TRAFFIC IMPACTS**

The project's construction-related and operational parking impacts are site specific and would not combine cumulatively with parking impacts of cumulative development. Further, the project would not substantially increase ridership on local transit facilities. Therefore, the project would result in less-than-significant cumulative parking and transit impacts.

Traffic volumes at the study intersections for the weekday a.m., weekday midday, weekday p.m., and weekend midday for cumulative conditions with the project are presented in Table 5-4 and Exhibits 5-2, 5-3 and 5-4.

The addition of project generated traffic to cumulative (no project) traffic would cause the Main Street/I-580 westbound off-ramp to deteriorate from LOS D to LOS E during the a.m. peak hour. Although, the project would not cause a change in the LOS of the Main Street/I-580 intersection, the project would cause the average vehicle delay of this intersection to increase by 12.7 seconds (i.e., 21.9 seconds to 31.6 seconds), which exceeds the City of San Rafael's significance threshold for intersections that operate at unacceptable levels. Therefore, the project would result in a significant cumulative traffic impact at this intersection. Mitigation recommended for the project, which requires CDC to contribute its fair share funding to the installation of traffic signals at the Main Street/I-580 eastbound on/off ramps would reduce the project's cumulative impact to a less-than-significant level. However, the intersection of Main Street/I-580 westbound off-ramp would continue to operate unacceptably.

*The project, by itself and in combination with cumulative development, would result in the deterioration of the LOS or average intersection delay at the intersections of Main Street/I-580 eastbound on/off-ramps and Main Street/ I-580 westbound off-ramp. Mitigation recommended for the project (see Section 4.12), which requires CDC to contribute its fair share funding to the installation of traffic signals at the Main Street/I-580 eastbound on/off ramps would reduce the project's cumulative impact to a less-than-significant level.*

**Table 5-4  
Traffic Operating Conditions Cumulative Scenario – With Project**

#	Intersection	weekday						weekend	
		a.m. peak		midday		p.m.		midday	
		Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>
1	U.S. 101 SB off-ramp/Sir Francis Drake Boulevard <sup>3</sup>	9.7	B	6.0	B	11.9	B	4.6	A
2	U.S. 101 NB on/off ramp/Sir Francis Drake Boulevard <sup>3</sup>	15.0	C	19.0	C	18.8	C	18.0	C
3	Larkspur Landing Cr (W)/Sir Francis Drake Boulevard <sup>3</sup>	13.2	B	12.8	B	22.3	C	11.3	B
4	Larkspur Landing Cr (E)/Sir Francis Drake Boulevard <sup>3</sup>	7.3	B	6.9	B	9.8	B	9.5	B
5	<i>San Quentin West Gate/Sir Francis Drake Boulevard<sup>3</sup></i>	<i>&gt;50</i>	<i>F</i>	<i>&gt;50</i>	<i>F</i>	<i>&gt;50</i>	<i>F</i>	<i>&gt;50</i>	<i>F</i>
6	<i>Andersen Drive/Sir Francis Drake Boulevard<sup>4</sup></i>	16.2	C	8.6	B	13.5	B	9.0	B
7	<i>Main Street/I-580 EB on/off ramp<sup>4</sup></i>	<i>10.1</i>	<i>B</i>	<i>&gt;50</i>	<i>F</i>	<i>&gt;50</i>	<i>F</i>	<i>34.6</i>	<i>D</i>
8	<i>Main Street/I-580 WB off-ramp<sup>4</sup></i>	<i>37.5</i>	<i>E</i>	<i>&gt;50</i>	<i>F</i>	<i>47.5</i>	<i>E</i>	<i>48.9</i>	<i>E</i>

Notes: Intersections 1-4 are signalized; Intersections 5-8 are unsignalized.

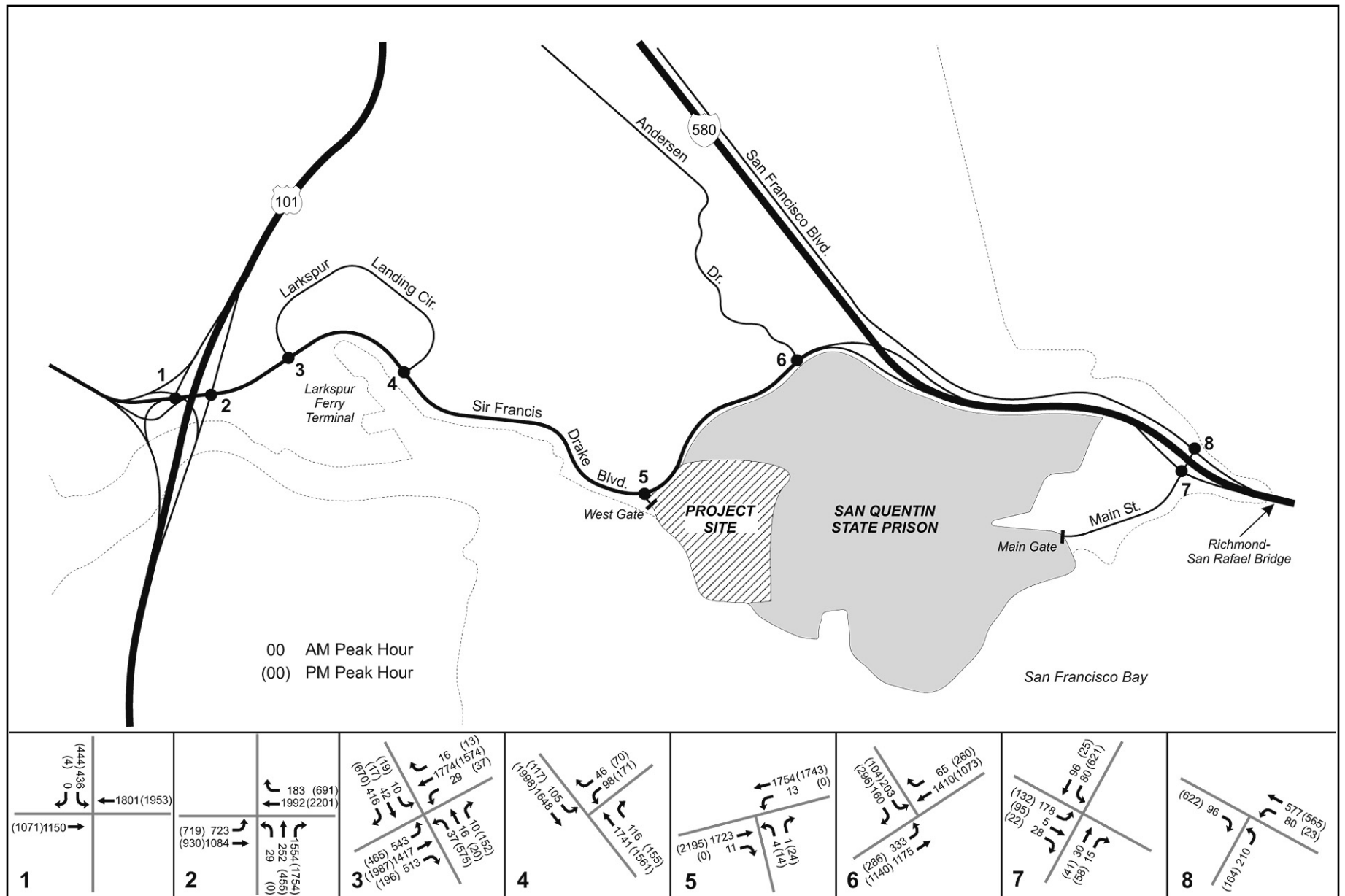
<sup>1</sup> Avg. Delay: Average Delay in seconds per vehicle.

<sup>2</sup> LOS: Level of Service

<sup>3</sup> City of Larkspur Intersection

<sup>4</sup> City of San Rafael Intersection

Source: DKS Associates 2004



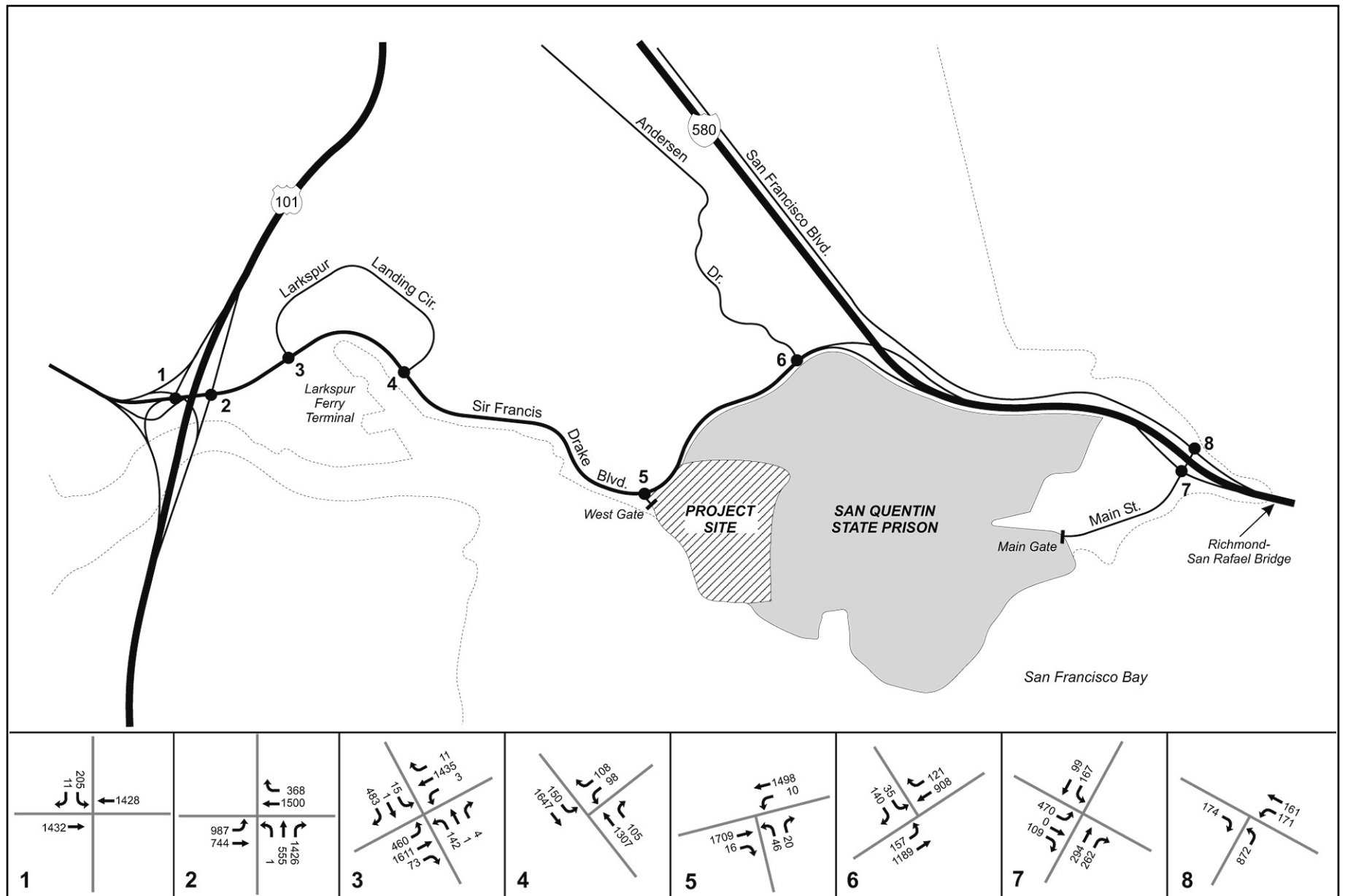
Source: DKS Associates 2004

## Cumulative Project Traffic Volumes ñ Weekday AM and PM Peak Hour

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EXHIBIT 5-2

EDAW



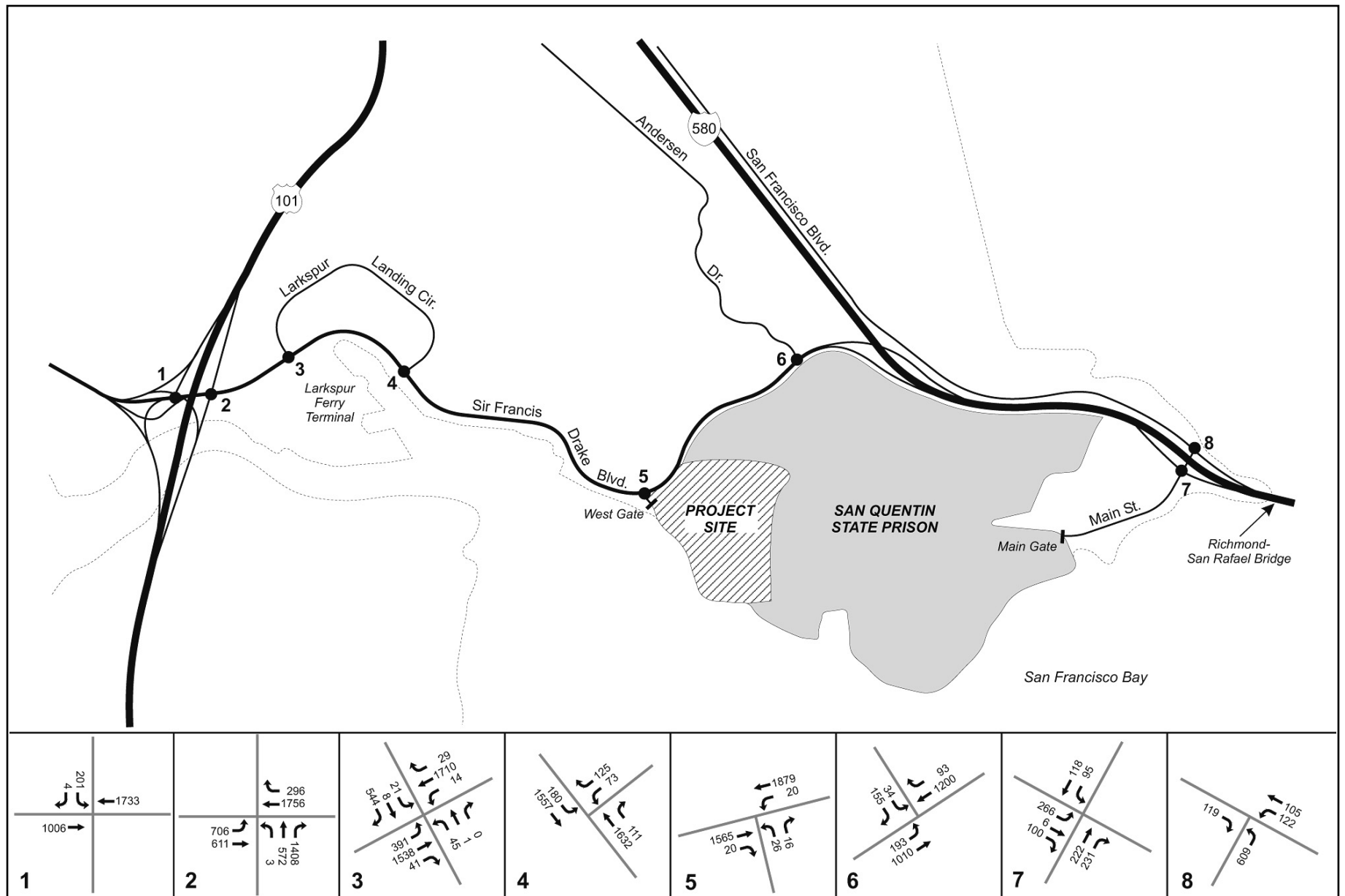
Source: DKS Associates 2004

## Cumulative Project Traffic Volumes Weekday ñ Midday Peak Hour

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EXHIBIT 5-3

EDAW



Source: DKS Associates 2004

## Cumulative Project Traffic Volumes ñ Weekend Midday Peak Hour

EXHIBIT 5-4